Michael A. Kyte

Education M.S., Zoology, University of Maine, 1974.
B.S., Zoology, University of Washington, 1969.
Working Scuba Diver Training Course, December 2002, Divers Institute of Technology, Seattle, Washington

Affiliations North American Marine Invertebrate Taxonomists Association
Pacific Estuarine Research Society
Society of Environmental Toxicology and Chemistry, Pacific Northwest Chapter

Certifications Certified Master Scuba Diver including Nitrox and Rescue diver certifications
Hazardous material handling training; 40 hour with current refreshers
First Aid and CPR current certifications
Certified by Washington Department of Fish and Wildlife for geoduck, marine vegetation, and forage fish surveys

Experience

Mr. Kyte is a marine biologist with over 30 years of experience specializing in coldwater environments and habitats. Mr. Kyte has a demonstrated expertise in seeking and finding balanced solutions to controversies arising from the goals of industry and developers and the policies of regulatory agencies. He has extensive knowledge of and experience with aquatic and marine intertidal and subtidal ecosystems, including contaminated sediment issues. His specialties include nearshore habitats, subtidal benthic ecology, submerged aquatic vegetation (SAV) (eelgrass and macroalgae), impact evaluation and mitigation; habitat and shellfish assessments; permitting requirements, long-term ambient conditions monitoring, and contaminated sediment assessment.

PROJECT EXPERIENCE

City of Yakima - Naches Water Treatment Plant Screening Project.

Assisted project field team as a specialist diving biologist to remove finfish from the vicinityof the Naches River Water Treatment Plant (WTP). The fish salvage operation required the use of scuba to effectively remove fish, including ESA listed Middle Columbia River Steelhead, from deeper areas of the extensive intake channel system.

Biological and Sediment Reconnaissance Survey, Alaska Department of Transportation and Public Facilities, Shuttle Ferry Terminal Expansion. Sitka, Alaska

Senior marine biologist and principal investigator conducting a marine biological and contaminated sediment reconnaissance survey for a proposed Alaska ferry terminal expansion near Sitka, Alaska. Included determining the extent of critical habitat (eelgrass), reconnaissance sampling of sediment and soil in a existing marine shipyard, obtaining shellfish samples for tissue chemical analysis, and interpretation and reporting of results. Samples were obtained during low tides and by scuba diving.

Marine Environmental Issues Consulting. BP Cherry Point Refinery, Phillips 66 Ferndale Refinery, and Alcoa Intalco Works (aluminum smelter), Washington

Project Manager and Principal Investigator for assisting the three industries using the Cherry Point Reach on the Southeast Strait of Georgia with various marine environmental issues. Issues and projects have

included assistance with NPDES permit appeals, contaminated sediment characterization, ambient conditions monitoring using remote sensing and focused in situ sampling programs, accidental oil spill natural resource damage assessment, Endangered Species Act biological assessments, liaison with state and federal agencies on marine environmental issues (especially Pacific herring) and permits, and shoreline littoral processes and impacts on these processes.

Biological Resource Assessment and GIS Mapping, Impact Evaluation and Mitigation. Marine Outfall Site Selection (MOSS) Project. King County, Washington

Project Manager and principal investigator designed and led a team of five scuba divers to conduct a quantitative survey of geoduck clams to supplement existing information in the vicinity of proposed outfall sites. The results of the study will be used to assist outfall site selection in addition to impact evaluation and natural resource damage assessment. Data were collected using scuba diving and standardized sampling techniques to estimate population density and biomass, document habitat conditions, and collect samples for tissue chemical analysis. The survey was conducted along over 7 miles of shoreline and offshore to the 70-foot depth contour.

Endangered Species Act Biological Evaluation, BP Cherry Point Cogeneration Project, Blaine, Washington.

Prepared an Endangered Species Act Biological Evaluation for a proposed cogeneration power plant to be linked to the BP Cherry Point Refinery. Included effects on listed species and critical habitats in terrestrial, wetland, stream, and marine habitats.

Endangered Species Act Biological Evaluation, Mercer Cogentrix Cogeneration Power Plant Project, Eastern Washington.

Assisted with and directed preparation of an Endangered Species Act Biological Evaluation for a proposed cogeneration power plant in Eastern Washington near the Columbia River. Included effects on listed species and critical habitats in terrestrial, wetland, and stream habitats. Assisted with the assessment of salmonid use of nearby tributaries to the Columbia River.

Biological Resource and Permitting Feasibility Assessment, Chambers Creek Boat Launch, Pierce County, Washington.

Project manager and senior marine biologist for planning, conducting, and compiling an assessment of biological resources and habitats in Chambers Bay in preparation of submitting permit applications for a recreational boat launching facility. Assessed the permitting feasibility of two sites in the context of state and federal agency requirements relative to “no net loss of productive habitat” and avoidance of impacts to federally listed threatened and endangered species. Conducted biological surveys using a near shore habitat rapid inventory method developed at Golder Associates Inc.

Biological Resource and Endangered Species Act Biological Assessment, City of Gig Harbor Outfall Extension Project, Washington

Project manager and senior marine biologist for planning, conducting, and compiling assessments of biological resources including geoduck clams and critical habitats for an 8,500-foot treated wastewater replacement outfall in Gig Harbor. Conducted studies to delineate commercially important geoduck populations, confirmed presence and absence of critical habitats including eelgrass, and documented existing conditions throughout the project area. In addition, compiled a Biological Assesment with a mitigation plan as prescribed by the Endangered Species Act.

Michael A. Kyte

Biological Assessment and Resource Surveys, Midway Sewer District
Des Moines, Washington

Principal Investigator conducting marine biological studies necessary for permitting construction of a new outfall for the sewer district. Performed delineations on shellfish and eelgrass and other habitats. Designed innovative mitigation plan for impacts to eelgrass and conducted an Endangered Species Act Biological Assessment for the new outfall. Resource assessment was conducted over a 1-mile radius Shellfish Closure Zone.

Biological Resource Assessment, Impact Evaluation and Mitigation
Denis Body (private landowner) Sequim, Washington

Project Manager conducting a biological delineation of marine resources, primarily eelgrass, for obtaining permits to construct a private boat dock and connecting walkway. Assisted with mitigation plan design and provided expert testimony in a shoreline public hearing.

Ecological Research on the Bottom-Dwelling Squid, *Rossia pacifica*. Dash Point, WA

Assisted and mentored a graduate student from Western Washington University with ecological study on a bottom dwelling squid. Studies conducted at Dash Point County Park, Tacoma, WA, included seasonal surveys to determine depth distribution, a study on diurnal behavior, and systematic observations on behavior and habitat.

Biological Studies, City of Des Moines Artificial Reef Program Washington

Project Manager for quantitative biological resource studies including SAV and shellfish within an existing reef and in an area proposed for an artificial reef for scuba divers; assisted City with design and construction of a large artificial reef and; conducted biological study on the relative use by fish of different materials within an existing reef; participated in designing and supervising the expansion of an existing reef with concrete rubble; monitored biological succession on the newest component of the artificial reef; documented biological communities and development on this reef with underwater still and video photography; assessed the value for recreational harvesting of clam stocks at a beach the City was proposing to acquire; and established a program to monitor pollution and paralytic shellfish poison levels in clams within a new park.

Biological Resource Assessments and Impact Evaluation, Kingston Wastewater Treatment Plant Outfall Replacement Kitsap County, Washington

Project Manager for design and conduct of biological resource assessments including commercially important shellfish, SAV, and sensitive habitats for permitting of a wastewater treatment outfall. Assisted project engineer with preparation of an Endangered Species Act Biological Assessment. Also conducted sediment and tissue sampling to provide a baseline for future monitoring of effects caused by the new outfall. Assisted project engineers with route and construction method selection.

Biological Resource Assessment
Underwater Fiber Optic Cable Crossing San Juan Islands, Washington

Conducted surveys and impact evaluation for a fiber optic cable crossing between Decatur, Lopez, and Fidalgo islands in the San Juan Island Archipelago. Examined by scuba diving selected locations along the cable crossing route and assessed potential damages to critical habitats and resources including geoduck clams.

Biological Resource Mitigation and Sediment Studies

Michael A. Kyte

Wastewater Outfall Extension **City of Sequim, Washington**

Project Manager for biological studies on shellfish, SAV, sediments, and invertebrates in connection with a highly controversial proposed sewer outfall extension. Worked closely with the City, the City's consulting engineer, and Washington State regulatory agencies. Provided expert testimony in a subsequent court hearing. Also delineated eelgrass, macroalgae, invertebrate populations, and sediment types and designed and implemented an innovative mitigation plan for impacts to eelgrass beds with ongoing monitoring. Conducted sediment monitoring study required by Washington Department of Natural Resources. Wrote a Sediment Sampling and Analysis Plan following Washington Department of Ecology guidelines, conducted sampling, interpreted results and wrote a find report. Obtained State Hydraulic Project Approval and Corps permit.

Biological Studies, Puget Sound Energy
Southworth to Blake Island Power Cable Replacement **Washington**

Project Manager for surveys on SAV to determine an optimum route to minimize impacts from underwater cable installation. Also conducted habitat and geoduck surveys to document impacts from construction.

Biological Resource Assessment, Kitsap County Wastewater Outfall Improvements

Project Manager for quantitative biological resource assessments of shellfish and marine vegetation in 1-mile diameter areas around three existing outfalls. Obtained State Hydraulic Project Approvals.

Biological Survey, HDR Infrastructure, Inc., and the
Port of Edmonds Wastewater Outfall Route Selection **Washington**

Project Manager for biological surveys of eelgrass and shellfish for proposed treated sewage outfall proposed to be constructed through an existing artificial reef. Conducted surveys to determine the better of two alternative routes for the outfall and to determine levels of mitigation.

Biological Studies, University of Washington and
Seattle Metro Wastewater Outfall Construction **Washington**

Conducted biological baseline studies for the shallow subtidal portions of an expansion of the City of Seattle sewer system; included quantitative sampling of eelgrass, kelp, and sandbottom benthic communities.

Biological Resource Assessment and Impact Evaluation
Puget Power Hood Canal Cable Crossings **Washington**

Project Manager conducting biological delineation using diver and underwater video surveys of distribution and abundance of eelgrass and shellfish (geoducks) along routes of proposed submerged cable crossings. Provided guidance to avoid or minimize impacts and worked to establish appropriate mitigation for unavoidable adverse impacts. Obtained State Hydraulic Project Approval and Corps permits.

Littoral Processes Impact Evaluation, Vashon Island, WA

Evaluated the impacts on littoral processes, especially beach profile and sediment transport, of a property owner’s efforts to protect his shoreline. Provided expert testimony in a King County shorelines hearing.

Michael A. Kyte

Biological Assessment (Evaluation)
ARCO Products Company, Cherry Point Refinery **Blaine, Washington**
Conducted a Biological Assessment (also known as a Biological Evaluation) under the Endangered Species Act for an expansion of the ARCO Marine Terminal in the SE Strait of Georgia. Evaluated impacts to baseline conditions and federally listed and candidate species in the project action areas. Also included Pacific herring, an ecological keystone species critical to federally listed salmonids. Concurrence by the reviewing Endangered Species Act agencies was received with a permit for construction from the U.S. Army Corps of Engineers.

Marine Sediment Recharacterization
ARCO Products Company, Cherry Point Refinery **Blaine, Washington**
Conducted a recharacterization of marine sediments in the vicinty of the ARCO Cherry Point Refinery Marien Terminal under the refinery's NPDES permit. Provided consultation on the preparation of draft and final sediment sampling and analysis plans, conducted a reconnaissance to assess conditions for sampling, obtained samples with sediment grabs and scuba diving where locations were not accessible for grab sampling, and assisted with interpretation and reporting of results.

Commercial Marine Facility Inventory and Condition Survey
San Juan Islands, Washington
Project manager and environmental expert for an inventory and condition survey of commercial marine access facilities of San Juan County. Conducted inspections of facilities, assessed conditions of launching ramps, piers, and floats, and made recommendations for repair, upgrading, and maintenance. Integrated known levels of use, needs, County policy, costs, and environmental considerations.

Biological Habitat and Sediment Mapping
Edmonds and Mukilteo Washington State Ferry Terminal Site Selection
Project Manager for biological habitat and surficial sediment mapping along the waterfronts of both cities, using a surface operated underwater video survey system with ground-truthing and resource delineation, including eelgrass and shellfish, by scuba diving.

Biological Resource Mitigation
U.S. Coast Guard Wave Protection Project **Port Angeles, Washington**
Project Manager conducting transplanting of eelgrass for mitigation of impacts from construction of wave abatement structures.

Biological Resource Assessment **Port Angeles Harbor, Washington**
Project Manager conducting diver and underwater video biological surveys of distribution and abundance of marine resources and habitats in the vicinity of a proposed Fisherman's Terminal in the Port of Port Angeles. Identified that the project will not have major impacts on macrovegetation or other habitats because of past industrial degradation, thus minimizing the need for mitigation.

Biological Resource Assessment and Impact Evaluation, Fidalgo Bay Herring and Macrovegetation Studies **Anacortes, Washington**
Project Manager conducting intensive local and broader baywide biological monitoring of herring spawning and abundance of eelgrass and algae at a proposed marina site. Conducted SAV surveys of over 40 acres on the site and at selected locations over the remainder of the bay, employing an innovative, underwater video system integrated with a precision navigation system to map eelgrass and algae distributions.

Michael A. Kyte

Biological Resource Assessment and Impact Evaluation
Blakely Island Log Transfer Facility **Washington**
Project Manager conducting biological surveys of distribution and abundance of eelgrass, infauna, and bark deposits in the vicinity of an operating log transfer facility. Confirmed that the project had not had major impacts. Obtained long-term State Hydraulic Project Approval permit.

Biological Resource Assessment, Impact Evaluation and Mitigation
City of Coupeville Boat Launch Ramp, Washington
Project Manager conducting an intertidal biological survey of eelgrass at the Port of Coupeville's boat launch facility. Designed and negotiated an innovative mitigation plan for eelgrass impacts. Obtained State Hydraulic Project Approval.

Biological Resource Assessment and Impact Evaluation
Fidalgo Bay Shipyards **Anacortes, Washington**
Project Manager conducting biological studies of SAV, bottom type mapping, and bathymetry for a proposed small vessel shipyard redevelopment on an abandoned industrial site. Precision mapping was conducted of eelgrass and bottom types for permits necessary for the development.

Biological Resource Assessment and Impact Evaluation
Washington State Department of Transportation, Marine Division
Project Manager for delineation of shellfish and eelgrass resources at the Kingston and Vashon Island ferry landings in preparation for expansions of facilities. Underwater excavation sampling performed to obtain specimens.

Shellfish Stock Assessment and Personnel Training
Washington State Department of Natural Resources
Project Manager conducting geoduck clam surveys. Trained DNR personnel in geoduck clam survey and data analysis methods.

Sediment Studies, Cascade Pole Superfund Site and the
Port of Olympia, Washington **Olympia, Washington**
Project Scientist assisting with an extensive sediment sampling program in Budd Inlet. Core and grab samples of highly contaminated sediments adjacent to a wood-treatment site were obtained from a large number of intertidal and shallow subtidal stations.

Sediment Studies, Aqua Terra Technologies
Project Scientist assisting with extensive contaminated sediment studies in central Puget Sound and San Francisco Bay.

Biological Resource Assessment and Monitoring, Atlantic Richfield Company
Cherry Point and BP Oil Company Ferndale Refineries **Washington**
Project Manager and Principal Investigator for designing and conducting longterm, legally defensible, and scientifically sound biological monitoring programs focused on the needs and pollution potential of each refinery. Programs included aerial photogrammetry, sampling marine sediments for chemical contamination and mussels for bioaccumulation, and systematic monitoring ecosystem indicators including habitat, eelgrass, macroalgae, and macroepifauna.

Michael A. Kyte

Sediment Studies, Washington Department of Ecology
As a consulting scientist assisted in establishing sediment quality standards for the State of Washington by participating on the sediment quality standards committee. Represented and provided input from clients including petroleum refineries.

Biological Site Hazard Assessment, Lake Hancock
Whidbey Island, U.S. Naval Air Facility **Washington**
Survey Team Coordinator and Senior Marine Biologist conducting a field investigation to determine the extent of contamination from historical use of the area as a target bombing range. Collected water and sediment samples, supervised and directed U.S. Navy Explosives Ordnance Disposal personnel for underwater sample collection and photography, and conducted preliminary reconnaissance of existing biota. Samples were collected in the presence of ordnance-related debris.

Biological Studies and Impact Evaluation, Mechanical Shellfish Harvesting, Maine Department of Marine Resources and Shellfish Harvesters in Washington State
Fishery Biologist conducting extensive biological and sediment studies on the effects of softshell clam harvesting by mechanical and hydraulic harvesters. Included comprehensive studies on impacts to associated biota, clam stocks, and sediment composition. Published a review report through Washington Sea Grant.

Biological Fishery Assessment, Maine State Department of Marine Resources
Fishery Biologist conducting biological studies of anadromous and catadromous fishery resources, especially striped bass.

Natural Resource Damage Assessment, Tosco Refining Company
Ferndale, Washington
As a consulting scientist conducted a natural resource damage assessment of a spill of about 200 barrels of mixed petroleum products from the Ferndale Refinery marine facility. Examined shorelines and intertidal biota in the Southeast Georgia Strait region, submitted a report on findings and participated in subsequent legal actions.

Natural Resource Damage Assessment, Tosco Refining Company
Ferndale Refinery **Washington**
On request from refinery personnel, conducted a natural resource damage assessment of a spill of fuel oil from a tanker moored at the refinery. Examined shorelines and intertidal biota in the Southeast Georgia Strait region to assess damage to habitats and biota.

Biological Resource Assessment and Impact Evaluation
TransMountain Pipeline Company Cross- Puget Sound Pipeline **Washington**
Managed all biological data collection activities for TransMountain's Energy Facility Site Evaluation permit to install a transshipment terminal on the Strait of Juan de Fuca and pipeline from the terminal to the Canada/US border at Lynden. Conducted biological assessments of all stream crossings and impacts to salmonid fisheries. Stream surveys were conducted with company engineer and included all streams between Low Point (west of Port Angeles) to the Canadian border. In addition conducted surveys of all marine crossing assessing potential impacts to bioresources including eelgrass, shellfish, and other commercially important species.

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Biological Resource Assessment and Impact Evaluation
Northern Tier Pipeline Company Cross-Puget Sound Pipeline Washington
Conducted resource assessments of all stream and saltwater crossings and impact evaluations to salmonid fisheries. Also conducted marine and estuarine habitat and biological resource assessments.

Salmon Spawning Habitat Surveys, Small Tribes of Western Washington
Conducted salmonid habitat and use surveys on several streams on the Kitsap Peninsula in conjunction with a habitat resource inventory and tagging program.

Biological Resource Assessment and Impact Evaluation,
North Slope Borough, Alaska
Conducted habitat and spawning use surveys of streams on sites of proposed oil field development. Also conducted studies to predict impacts on arctic wildlife and near shore biota.

Salmon Use Studies, Snohomish River Estuary Washington
Project Manager conducted studies to determine the use of an estuarine tidal flat by outmigrant salmonids and Dungeness crabs using intertidal beach seining for salmonids, crab sampling using crab traps and beam trawls, and sampling epibenthic zooplankton (salmon prey resources) using a specially designed hydraulic suction sampler.

Biological and Sediment Investigations, Naval Air Facility Adak Island, Alaska
Conducted biological and sediment environmental sampling for ecological risk assessment studies in freshwater and marine habitats in the vicinity of Adak Naval Base and at background sites. Employed standard sampling gear including a plumb staff beam trawl, sediment grabs, and electrofishing to collect samples for environmental and tissue analyses. Conducted analyses and interpretation of data resulting from the sampling.

Biological Resource Assessment Prince William Sound, Alaska
Project Manager conducting a biological investigation of an apparent decline in octopus stocks in a subsistence fishery. Established thorough subtidal surveys using scuba diving and literature review that octopus had declined because of intense competition and predation by sea otters.

Biological Resource Assessment and Impact Evaluation, Pier Dredging Project
BP Oil Company Ferndale Refinery Washington
Project Manager for long-term biological studies of effects of dredging at the BP Oil Company Ferndale Refinery marine facilities. Emphasized Dungeness crabs and flatfish. Used standard trawls, scuba diving, and systematic trapping. Used underwater video surveys to document existing conditions in the study areas, and took infaunal samples using standard corers and a specially designed diver-operated airlift suction sampler. This program was conducted for one and one-half years before and during dredging and continued for three years following construction to monitor the recovery process.

Biological Status Evaluation of Marine Invertebrates
Washington Department of Fish and Wildlife
Conducted a biological inventory of nongame (unclassified) marine invertebrate species and uses and a status evaluation; proposed management and conservation guidelines for the Washington Department of Fish and Wildlife. Extensive interviews of academic researchers, commercial suppliers, professional consultants, and state and federal resource agency personnel were conducted. Served on a rule-making

committee to write legislation to protect and conserve unclassified invertebrates and fish in Washington state.

Biological Oil Spill Impact Evaluation, Washington Department of Fisheries
Strait of Juan de Fuca, Washington

Assisted in the design of and conducted a biological sampling program to assess the effects of the ARCO *Anchorage* oil spill on subtidal shellfish (sea urchin) resources in the Strait of Juan de Fuca.

Razor Clam Biology Studies, Washington Department of Fish and Wildlife

Conducted biological studies on the subtidal distribution and biology of commercial razor clams off the coast of Washington in the vicinity of Grays Harbor and Willapa Bay. Scuba diving with specialized sampling systems was used.

Biological Resource Assessment and Impact Evaluation
Griffin Bay Preservation Committee **San Juan Island, Washington**

Project Manager for documenting marine biological resources and conditions in Griffin Bay, San Juan Island in the vicinity of Argyle Shoal. Surveyed shellfish and finfish resources and habitats using underwater video and still photography. Assessed potential effects from a proposed salmon net pen facility.

***Biological Resources Studies and Impact Evaluation**
Kiewit Construction Company **Ferndale, Washington**

Assisted with an EIS for a proposed graving dock at Cherry Point, Ferndale, Washington; prepared technical biological reports and text on invertebrate communities, algae, eelgrass, and fisheries. Continued biological studies on Dungeness crab, salmon, and herring population dynamics and fisheries following completion of the EIS.

Biological Baseline Reconnaissance Survey
A.J. Mining Company **Juneau, Alaska**

Project Manager conducting a marine biological reconnaissance survey for a planned tailings disposal site near Juneau, Alaska. Included examination of benthic habitats and biota under and adjacent to an existing fish holding pen, at a reference site, and in the intertidal on an existing tailing deposit.

Biological Resource Assessment and Impact Evaluation, Dredged Material Disposal Site Selection **Washington**

Project Manager conducting studies for selections of sites for disposal of dredged materials from Grays Harbor and Willapa Bay. Emphasis was on the potential impacts of Dungeness crab and bottom fish resources.

***Environmental Impact Statement, Willapa Bay/Grays Harbor Oyster Growers Association** **Washington**

Project Manager for preparation of Draft and Final State Environmental Impact Statements on the use of the insecticide Sevin 80S by oyster growers to control burrowing shrimp. Included literature review and biological field studies.

Michael A. Kyte

Shellfish Stock Assessment and Monitoring, Little Skookum Shellfish Growers
Shelton, Washington

Conducted hardshell clam stock assessment and established a long-term monitoring program for a commercial shellfish grower.

Biological Resource Assessment, Exploratory Oil Drilling
Lower Cook Inlet, Alaska

Project Scientist conducting biological surveys in preparation for exploratory oil well drilling by three companies. Performed sampling by scuba diving and surface operated video and still photography, and grab, trawl, and plankton nets.

Biological Impact Evaluation **Pribilof Islands, Alaska**

Senior Marine Biologist conducting biological field sampling, data analysis, and report preparation for an investigation of potential impacts to subtidal habitats and biota from processing effluent discharged by floating fish processors.

Salmonid Biological Impact Evaluation, Willow Grove Park
Cowlitz County, Washington

Principal investigator conducting biological studies of design options for a breakwater and small boat launching facility on the Columbia River. Assessed impacts of various designs on salmonid habitat and migratory pathways.

Salmonid Biological Impact Evaluation, Port Facilities Improvements
Port of Vancouver, Washington

Principal investigator assessing biological impacts on salmon from a proposed port renovation in the Columbia River.

***Biological Studies, Tollgate Environmental Impact Statement**
City of North Bend, Washington

Described existing habitats and use of freshwater streams by salmonid fish within the vicinity of a proposed residential and employment park development. Assessed potential impacts from the development and described mitigation measures.

Marine Ecosystem Study, ARCO Cherry Point Refinery, Alcoa Intalco Works
Tosco Ferndale Refinery **Washington**

Project Manager conducting a comprehensive data search and compilation and literature reviews.for the three industries with major facilities on the Cherry Point, Washington, shoreline. Described the existing and historical marine ecosystem in the SE Georgia Strait relative to the local stock of Pacific herring. This study was performed in conjunction with a screening level ecological risk assessment conducted by Washington State regulatory agencies.

Biological Consultation, Sandy Point Alliance **Ferndale Washington**

Project Manager advising the Sandy Point residential association on biological and shoreline environmental issuses including impacts of dredging, filling, and long-shore sediment transport. Assisted the association at public hearings.

Michael A. Kyte

Biological Monitoring, Naval Air Station **Whidbey Island, Washington**

Principal Investigator designing and conducting long-term marine biological monitoring to assess the effectiveness for remediation after a petroleum spill from an upland fuel storage facility. Project involved monitoring indicator assemblages and species in the intertidal zone on a beach down-gradient from the fuel farm.

Biological and Environmental Data Compilation and Review
Sinclair Inlet Aquascape Plan **Washington**

Technical Lead and Senior Marine Biologist leading and directing a team of scientists conducting a fast-track environmental data search and compilation on existing conditions of the Sinclair Inlet marine ecosystem. Included focussed studies on sensitive issues and areas within the inlet. Study defined mitigation opportunities within the inlet. The resulting data matrix and summary report formed the basis for a marine landscape plan.

Sediment Monitoring, Puget Sound Naval Shipyard **Bremerton, Washington**

Task Manager and principal investigator for sampling contaminated sediments for Washington State Department of Ecology Water Quality Certification for dredging at Pier D of the Bremerton Naval Complex. In addition to sampling, analysis, and geo-statistical evaluation of the spatial and temporal trends in sediment chemistry, conducted an underwater video survey of the dredge prism in order to verify the integrity of the prism geometry. At the same time, underwater surveys of the bathymetric anomaly and an area of upwelling were investigated near Operable Unit A, adjacent to Pier G. Also planned and conducted sampling of sediments under shipyard piers using diving.

Biological Oversight and Advising, Tacoma Pier 23 Structural Engineering
and Environmental Studies **Washington**

Assisted the BERGER/ABAM Engineers Inc., waterfront engineering team with biological environmental analysis and oversight for rennovations of Pier 23 in Commencement Bay, WA.

Biological Impact Studies, Intalco Aluminum Smelter **Ferndale, Washington**

Assisted with studies on the impact of wastewater discharges from the Intalco Aluminum Smelter on the marine environment. Conducted benthic infauna and epifauna sampling in the intertidal and subtidal zones and assisted with bioassay tests.